The Anes Ktir *Half-Tens Square Rule* Discovered by: Anes Ktir Date of Discovery: 9 October 2025

Abstract

The Half-Tens Square Rule is a mathematical identity discovered by **Anes Ktir.** This identity provides an alternative and elegant **method to calculate the square of any positive integer** using its half and multiples of ten. The document explains the rule, provides examples, and demonstrates its consistency and applicability.

The Rule

For any positive integer n, the square of n can be expressed as:

n^2 = (n ÷ 2) × 10 + n × (n - 5)

Where:

n ÷ 2 is half of the number.

Multiply it by 10 to form the tens part.

Then add n × (n - 5) to complete the calculation.

Examples

n	Calculation	Result
1	**(1 ÷ 2) × 10 + 1 × (1 - 5) = 0.5 × 10 + 1 × (-4) = 5 - 4**	**1^2 = 1**
2	**(2 ÷ 2) × 10 + 2 × (2 - 5) = 1 × 10 + 2 × (-3) = 10 - 6**	**2^2 = 4**
3	**(3 ÷ 2) × 10 + 3 × (3 - 5) = 1.5 × 10 + 3 × (-2) = 15 - 6**	**3^2 = 9**
4	**(4 ÷ 2) × 10 + 4 × (4 - 5) = 2 × 10 + 4 × (-1) = 20 - 4**	**4^2 = 16**
5	**(5 ÷ 2) × 10 + 5 × (5 - 5) = 2.5 × 10 + 5 × 0 = 25 + 0**	**5^2 = 25**
6	**(6 ÷ 2) × 10 + 6 × (6 - 5) = 3 × 10 + 6 × 1 = 30 + 6**	**6^2 = 36**
7	**(7 ÷ 2) × 10 + 7 × (7 - 5) = 3.5 × 10 + 7 × 2 = 35 + 14**	**7^2 = 49**
8	**(8 ÷ 2) × 10 + 8 × (8 - 5) = 4 × 10 + 8 × 3 = 40 + 24**	**8^2 = 64**
9	**(9 ÷ 2) × 10 + 9 × (9 - 5) = 4.5 × 10 + 9 × 4 = 45 + 36**	**9^2 = 81**
10	**(10 ÷ 2) × 10 + 10 × (10 - 5) = 5 × 10 + 10 × 5 = 50 + 50**	**10^2 = 100**

Conclusion

The Half-Tens Square Rule is a unique and reliable method to calculate squares of integers. Its simplicity makes it a **useful tool for mental arithmetic**, demonstrating a clear pattern in number relationships. This discovery by Anes Ktir is now documented and can be referenced publicly.

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